

CLAIMS

1. A media packet structure (MP) comprising an insensitive part (ISP) comprising a
block of media data (BMD) and a sensitive part (SP), said sensitive part being
5 protected by a checksum (CS), said sensitive part comprising error correction codes
(FEC) for correcting the block of media data (BMD) contained in said insensitive part
(ISP).
2. A media packet (MP) as claimed in claim 1, wherein said error correction codes are
10 forward error correction codes (FEC).
3. A media packet as claimed in claim 1, wherein comprising a second block of media
data (BMD2), said second block of media data being contained in the sensitive part
(SP).
- 15 4. A transmitter for transmitting multimedia content (MM) to a receiver via a network
(3), said transmitter comprising:
 - media encoding means (10) for encoding said multimedia content (MM) into a media
data bitstream (MD_BSTR),
 - 20 - packetizing means (11) for organizing said media data bitstream (MD_BSTR) into blocks
of media data,
 - means (12) for calculating error correction codes (FEC) for correcting a block of media
data (BMD),
 - transmitter network protocol means (13) for embedding said block of media data (BMD)
25 into an insensitive part (ISP) and said error correction codes (FEC) into a sensitive part
(SP) of a media packet (MP), said transmitter network protocol means (13) comprising
checksum sub-means (14) for calculating a checksum (CS) for protecting said sensitive
part (SP).
- 30 5. A receiver for receiving a media packet (RMP) transmitted via a network (3), said
receiver comprising:
 - receiver network protocol means (20) for extracting a received block of media data
(RBMD) from an insensitive part (ISP) and error correction codes (FEC) from a sensitive
part (SP) of said received media packet (RMP), said receiver network protocol means

comprising checksum calculating sub-means (21) for checking whether a checksum (CS) calculated on said sensitive part (SP) is valid,

- means (22) for correcting said received block of media data (RBMD) using said error correction codes (FEC),
- 5 - depacketizing means (23) for inserting said corrected block of media data (CBMD) to a received media bitstream (RMD_BSTR),
- media decoding means (24) for decoding said received media bitstream (RMD_BSTR).

10 6. A router for routing a media packet (MP) received via a network (3) to a receiver, said media packet comprising an insensitive part (ISP) comprising said block of media data (BMD) and a sensitive part (SP), said sensitive part being protected by a checksum (CS), said sensitive part comprising said error correction codes (FEC), said router comprising router network protocol means (30) comprising checking means for checking that said checksum is valid, and error correction means (31) for correcting
15 said block of media data (BMD).

7. A method of transmitting multimedia content (MM) via a network (3), said method comprising the steps of:

- encoding (10) said multimedia content (MM) into a media bitstream (MD_BSTR),
- 20 - packetizing (11) said media bitstream (MD_BSTR) into blocks of media data,
- calculating (12) error correction codes (FEC) for a block of media data (BMD),
- embedding (13) said block of media data (BMD) into an insensitive part (ISP) and said error correction codes (FEC) into a sensitive part (SP) of a media packet (MP),
- calculating (14) a checksum (CS) for protecting said sensitive part (SP) of said media
25 packet (MP).

8. A method of receiving a media packet (RMP) via a network (3), said method comprising the steps of:

- extracting a received block of media data from an insensitive part (ISP) and error
30 correction codes (FEC) from a sensitive part (SP) of said received media packet (RMP) ,
- checking whether a checksum (CS) protecting said sensitive part (SP) is valid,
- rejecting the received media packet (RMP) if said checksum is invalid,
- correcting said received block of media data (RBMD) using said error correction codes (FEC),

- inserting said corrected block of media data (CBMD) to a received media bitstream (RMD_BSTR),
- decoding said received media bitstream (RMD_BSTR).

5 9. A method of routing a media packet received via a network (3) to a receiver, said method comprising the steps of:

- extracting a received block of media data (RBMD) from an insensitive part (ISP) and error correction codes (FEC) from a sensitive part (SP) of said received media packet (RMP),

- 10 - checking whether a checksum protecting said sensitive part (SP) is valid,
- rejecting the received media packet if said checksum (CS) is invalid,
- correcting the received block of media data (RBMD) using said error correction codes (FEC),
- re-embedding the corrected block of media data (CBMD) in a insensitive part (ISP) and
- 15 the error correction codes (FEC) in a sensitive part (SP) of a retransmitted media packet (RT_MP), said sensitive part being protected by a checksum.

20 10. A computer program comprising a set of instructions which, when loaded into a processor or a computer, causes the processor or the computer to carry out one of the methods as claimed in claims 7 to 9.

 11. A signal carrying a computer program as claimed in claim 10.